

## ***Rolling Element Bearing Activity Monitor (REBAM®)***

Bently Nevada's philosophy for monitoring and diagnostics of rolling element bearings is that 1) the monitor system will provide adequate warning to avert catastrophic machine failures, and 2) diagnostic data will be available, so that root cause (improper mounting, lubrication, loading, rotor, or process problems) can be determined, and similar failures can be avoided.

A rolling element bearing, by design, has extremely small clearances, which do not allow a significant amount of shaft motion relative to the bearing. Forces from the shaft are transferred through the rolling elements to the outer race and then to the bearing housing.

The REBAM® System has been available from Bently Nevada for over 15 years and is recognized, proven technology. It uses a high-gain, low-noise, eddy current proximity transducer to make direct vibration measurement at the outer ring. The installation can take into account the unique design, operation, and mounting configurations of the bearing, providing information that would be lost by the time it reached casing-mounted seismic transducers. The REBAM transducer measures the very small (microinch/micrometre) deflection of the outer ring as the rolling elements pass the area observed by the transducer. The operating frequency range for the REBAM transducer system is from 0 Hz to 10 kHz (0 to 600 kcpm). The REBAM System is a direct and very sensitive method of rolling element bearing measurement. It offers a very high signal-to-noise ratio compared to casing-mounted acceleration or velocity measurements.

For more information on REBAM®, visit our website at [www.bently.com](http://www.bently.com). You can also request this information via our Reader Service Card inside this magazine. ↻

